

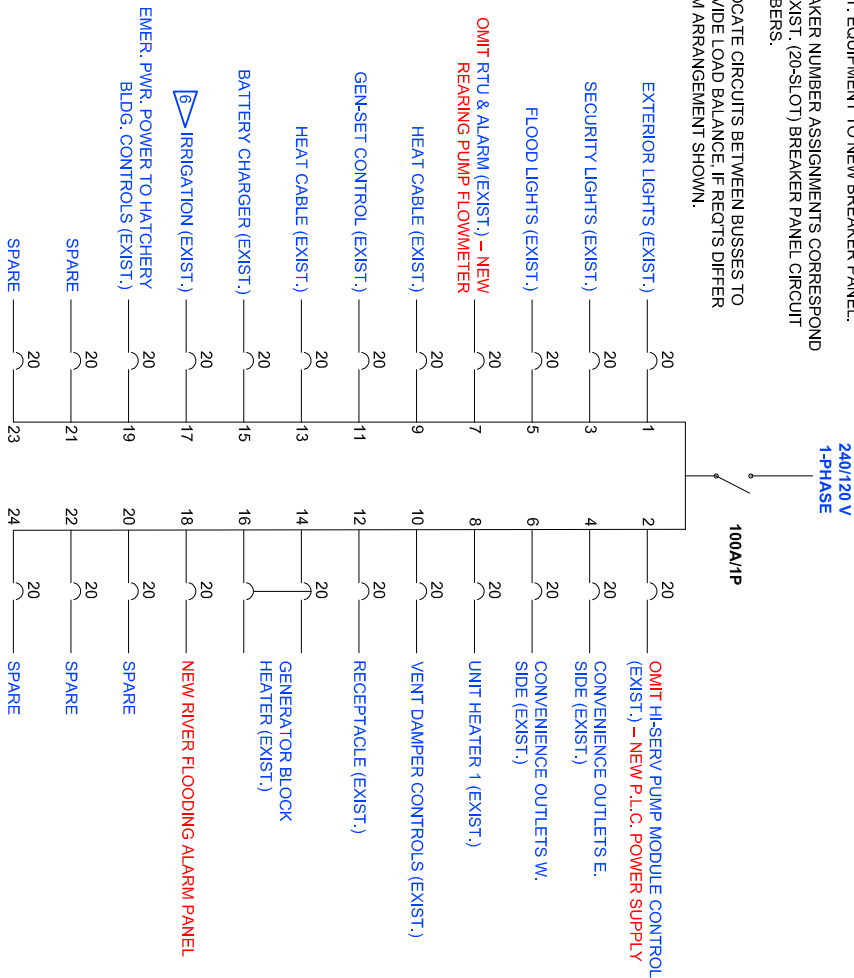
Pumphouse Electrical & Instrumentation/Control Plan

scale: 1" = 4'-0" (approx.)



NOTES:

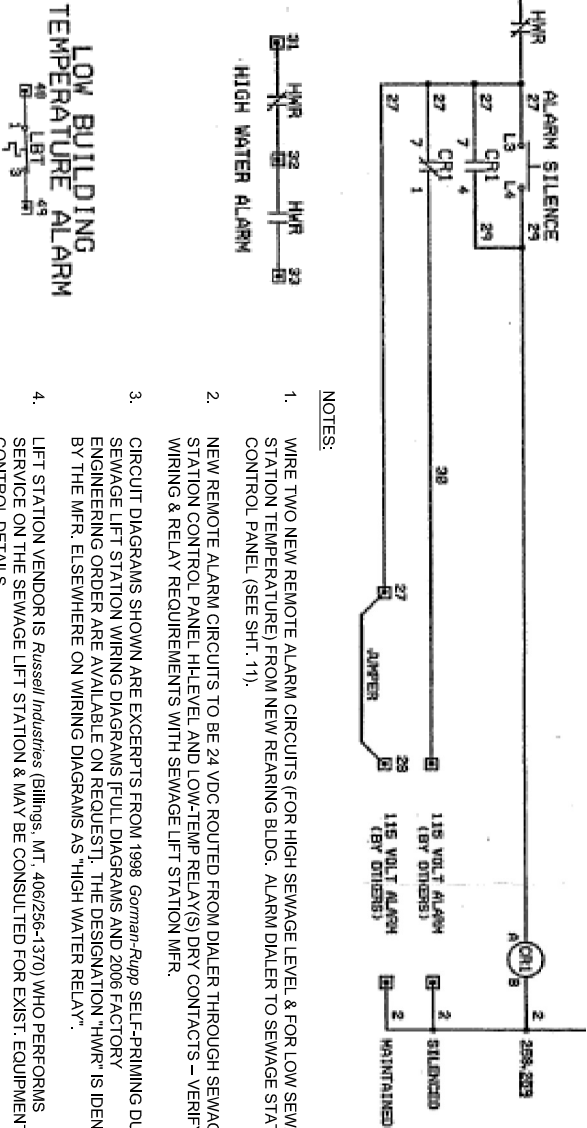
1. FIELD VERIFY ALL EXIST. CIRCUITS AND BREAKER SIZE REQ'TS BEFORE RECONNECTING EXIST. EQUIPMENT TO NEW BREAKER PANEL.
2. BREAKER NUMBER ASSIGNMENTS CORRESPOND TO EXIST. (20-SLOT) BREAKER PANEL CIRCUIT NUMBERS.
3. ALLOCATE CIRCUITS BETWEEN BUSESSES TO PROVIDE LOAD BALANCE. IF REQ'TS DIFFER FROM ARRANGEMENT SHOWN.



New (MCC) Lighting Panel Schematic

no scale

1. RUN NEW 110V POWER & I/C CONDUITS BETWEEN P.L.C. & NEW MCC - MULTIPLE RUNS REQ'D & ROUTING TO BE DETERMINED BY CTR. (RUNS SHOWN ARE ILLUSTRATIVE ONLY)

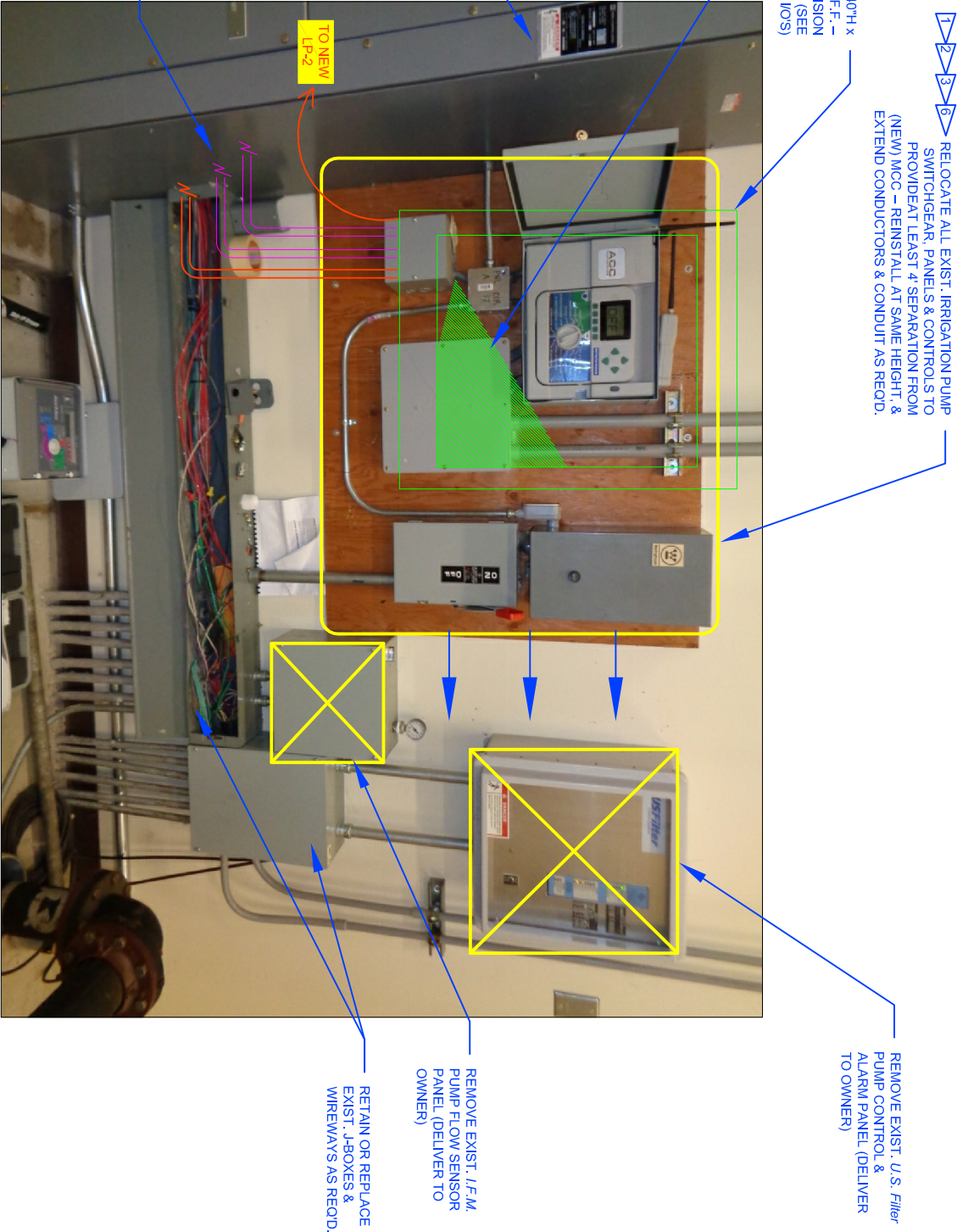


NOTES:

1. WIRE TWO NEW REMOTE ALARM CIRCUITS (FOR HIGH SEWAGE LEVEL & FOR LOW SEWAGE STATION TEMPERATURE) FROM NEW REARING BLDG. ALARM DIALER TO SEWAGE STATION CONTROL PANEL (SEE SHT. 11).
2. NEW REMOTE ALARM CIRCUITS TO BE 24 VDC ROUTED FROM DIALER THROUGH SEWAGE STATION CONTROL PANEL, HI-LEVEL AND LOW-TEMP RELAY(S) DRY CONTACTS - VERIFY WIRING & RELAY REQUIREMENTS WITH SEWAGE LIFT STATION MFR.
3. CIRCUIT DIAGRAMS SHOWN ARE EXCERPTS FROM 1998 *Gorman-Rupp* SELF-PRIMING DUPLEX SEWAGE LIFT STATION WIRING DIAGRAMS (FULL DIAGRAMS AND 2006 FACTORY ENGINEERING ORDER ARE AVAILABLE ON REQUEST). THE DESIGNATION "HWR" IS IDENTIFIED BY THE MFR. ELSEWHERE ON WIRING DIAGRAMS AS "HIGH WATER RELAY".
4. LIFT STATION VENDOR IS *Russell Industries* (Billings, MT, 406/256-1370) WHO PERFORMS SERVICE ON THE SEWAGE LIFT STATION & MAY BE CONSULTED FOR EXIST. EQUIPMENT AND CONTROL DETAILS.
5. NOTIFY GIANT SPRINGS STATE PARK IN WRITING 7 DAYS IN ADVANCE OF WORKING ON EXIST. SEWAGE LIFT STA. CONTROL PANEL FOR NEW ALARM CONNECTIONS.

Exist. Park Sewage Lift Sta. Alarm Relay Connections

no scale



Exist. Control & Irrigation Pump Panels to be Relocated (on S. Wall)

no scale

NOTES:

1. MOUNT PANELS (OR EXIST. PLYWOOD BACKER) TO NEW HORIZONTAL WALL-MOUNTED 2" *Unistrut* RUNS (LENGTHS AS REQ'D).
2. SPACE PANELS AS REQ'D. FOR CLEARANCES & CONDUIT ROUTINGS - SPATIAL ARRANGEMENT SHOWN IS SCHEMATIC. SUBJECT TO CONTRACTOR CONFIRMATION & ORIENTATION OF PANEL CONNECTIONS. ADD J-BOXES IF/AS REQ'D. ON CONDUITS EXTENSIONS.
3. POWER (AC & DC) CONDUCTORS CANNOT BE ROUTED IN SAME CONDUIT AS I/C CABLES.
4. ALL WIRING & GROUNDING PER N.E.C. & EQUIPMENT MFRS. REQ'TS.
5. PROFINET CABLES TO CONNECT FROM NEW VFD'S TO P.L.C. R.V.S.S. *SoftStarts* MAY REQUIRE HARD-WIRED SIGNALS TO/FROM P.L.C. - REQ'TS MAY VARY WITH EQUIPMENT FURNISHED (SUBJECT TO SUBMITTAL REVIEW).
6. CONTRACTOR TO COORDINATE WITH GIANT SPRINGS STATE PARK FOR RELOCATING IRRIGATION SYSTEM PANELS, & PROVIDE WRITTEN NOTICE TO PARK A MINIMUM OF 7 DAYS IN ADVANCE OF DE-ENERGIZING & MOVING ANY IRRIGATION GEAR.

